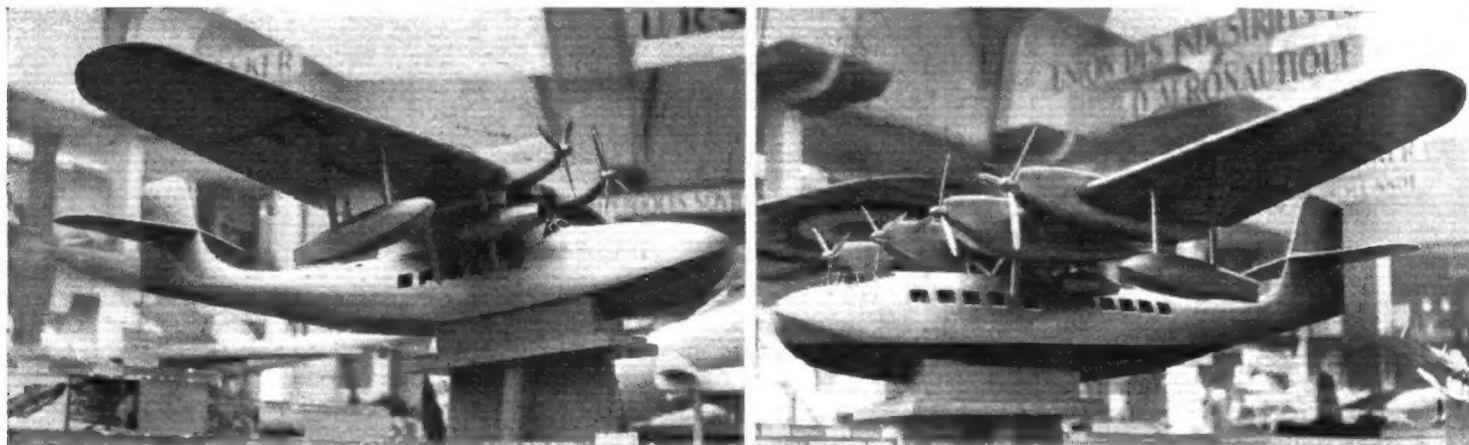


# CIVIL TYPES in PARIS

*Only One Large Commercial Machine : Advanced Russian Design : "L'Aviation Populaire" Well Represented*

(Illustrated with "Flight" Photographs and Drawings)



Marine Aircraft : Two large scale models of Liore et Olivier flying boats. On the left is the H.47 *l'Atlantique* and on the right the H.246. Note the two different engine arrangements.

**D**OMINATING the surrounding types of smaller fry by its very size, the Farman F.224 claims attention as the only representative of the really large commercial aeroplane in the Show. The parentage of the machine can be traced back to the Farman F.222 four-engined bomber, which has been ordered in large numbers by the French Air Ministry, and to the *Centaur* used on the South Atlantic air route, where it holds the record for speed.

In general design the F.224 is a high-wing strut-braced monoplane of all-metal construction, the fuselage having been increased in depth as compared with the F.222 so as to give full head room in the cabins and still leave space under them for a large luggage compartment. The pilots' compartment is above one of the passengers' cabins and slightly ahead of the wing, and is about six feet wide. The view is fairly good in spite of the fact that the fuselage projects a considerable distance forward of the windscreen, and the space is such that the crew of first and second pilot, wireless operator and engineer can do their work in comfort and with space to move freely.

## Forty Seats

Accommodation is provided for 40 passengers, nine being accommodated in the forward cabin and three in the bar under the crew's room. Two steps lead up to the middle cabin, which has seating accommodation for eight passengers and is next to a smaller cabin seating four. Then follows a corridor with lavatory and similar accommodation, aft of which are the two last cabins, each seating eight passengers.

The four engines, which may be of any radial type of approximately 800 h.p. each, are arranged in two tandem pairs and drive variable-pitch three-bladed airscrews. The engines actually fitted are Gnome-Rhône, type 14N, of a nominal 1,000 h.p. each.

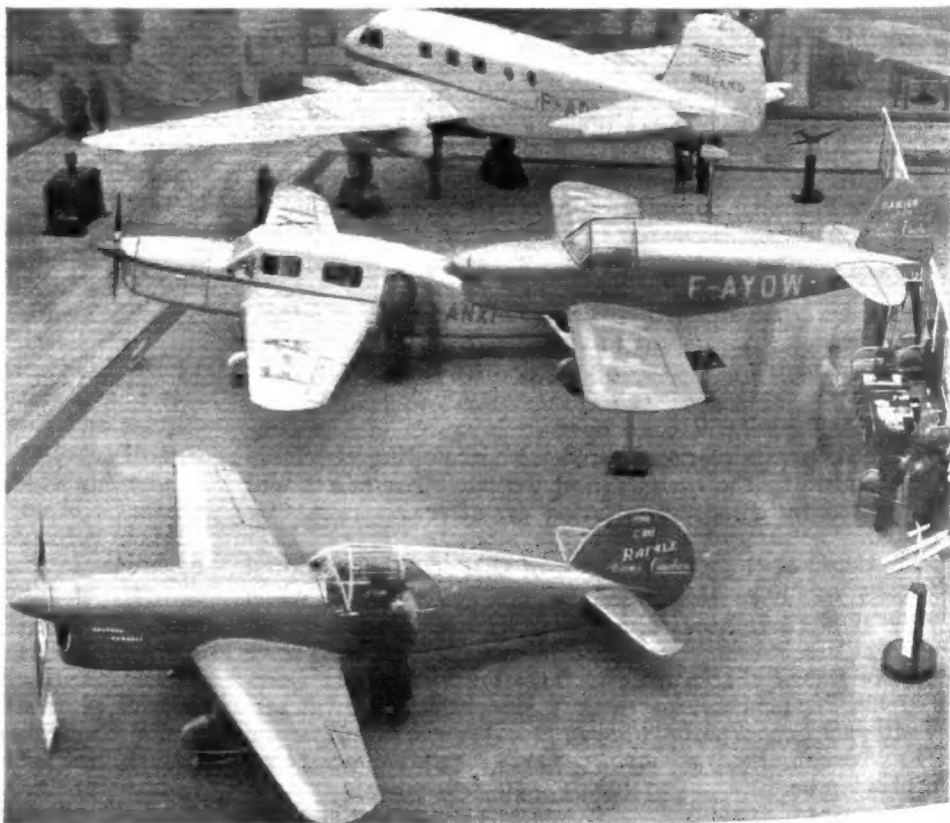
With a wing span of 36 m. (118ft.), the Farman F224 has a gross weight of 16,270 kg. (35,800lb.). With a total of

3,200 b.h.p. it has a maximum speed of about 190 m.p.h. The prototype is about to begin its tests, and when the machine has been tried out it will be put on Air France's London-Paris-Marseilles trunk route.

Although the Farman F224 is the only large commercial aeroplane actually exhibited, an indication of what is to come is afforded by a number of large scale models and drawings on one or two of the stands. For instance, Louis Breguet exhibits a cut-away sectional drawing of the Breguet 760 aeroplane,

which is planned as a four-engined mid-wing monoplane with accommodation for 56 passengers on two decks. Liore and Olivier show two models of very large flying boats, the two designs evidently representing alternative engine placings, and the layouts differing in other respects also.

The LeO H.246 is a large commercial flying boat monoplane, with four Hispano 12 Xirs water-cooled engines abreast on the leading edge of the wing. Radiators in large venturi cowlings are placed under the tail ends of the engine



Numerous Progeny : Four of the seven Caudron types shown. In the foreground is the *Rafale* fighter trainer. Beyond are (on the left) the *Simoun* four-seater and (on the right) the *Ramier*. The *Goeland* bought by Mrs. Amy Mollison is in the background.